SECTION 8.5

Noise

8.5 Noise

8.5.1 Introduction

This section presents an evaluation of potential noise effects related to the operation of the proposed Modesto Irrigation District (MID) Electric Generation Station (MEGS) Project. MEGS will be located adjacent to the existing City of Ripon Wastewater Treatment Plant.

8.5.1.1 Fundamentals of Acoustics

Noise is defined as unwanted sound. Airborne sound is a rapid fluctuation of air pressure above and below atmospheric pressure. There are several different ways to measure noise, depending on the source of the noise, the receiver, and the reason for the noise measurement. Technical noise terms used in this subsection are summarized in Table 8.5-1.

TABLE 8.5-1
Definitions of Acoustical Terms

Term	Definitions
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	Noise that intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, time of occurrence, and tonal or informational content as well as the prevailing ambient noise level.
Decibel (dB)	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the sound pressure to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).
A-Weighted Sound Level (dBA)	The sound pressure level in decibels as measured on a sound level meter using the A-weighted filter network. The A-weighted filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. All sound levels in this report are A-weighted.
Equivalent Noise Level (Leq)	The average A-weighted noise level during the measurement period.
Percentile Noise Level (L_n)	The noise level exceeded during n percent of the measurement period, where n is a number between 0 and 100 (e.g., L_{90}).
Community Noise Equivalent Level (CNEL)	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels to sound levels occurring between 7:00 p.m. and 10:00 p.m. and 10 decibels to sound levels between 10:00 p.m. and 7:00 a.m.
Day-Night Noise Level (Ldn or DNL)	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to sound levels occurring from 10:00 p.m. to 7:00 a.m.

In this section, some statistical noise levels are stated in terms of decibels on the A-weighted scale (dBA). Noise levels stated in terms of dBA reflect the response of the human ear by filtering out some of the noise in the low and high frequency ranges that the human ear does not detect well. The A-weighted scale is used in most ordinances and standards. The equivalent sound pressure level (L_{eq}) is defined as the average noise level, on an energy basis, for a stated period (e.g., hourly).

In practice, the level of a sound source is conveniently measured using a sound level meter that includes an electrical filter corresponding to the A-weighted curve. The sound level meter also performs the calculations required to determine the L_{eq} for the measurement period. The statistical descriptors, L_n, relate to the noise level distribution over the measurement period. For example, the L_{90} is the noise level that is exceeded during 90 percent of the measurement period. Similarly, the L_{10} represents the noise level exceeded for 10 percent of the measurement period.

To account for human sensitivity to nighttime noise levels, the Community Noise Equivalent Level (CNEL) was developed. CNEL is a noise index that accounts for the greater annoyance of noise during the evening and nighttime hours. CNEL values are calculated by averaging hourly L_{eq} sound levels for a 24-hour period, and applying penalties to evening and nighttime L_{eq} values. The penalties, which reflect the increased sensitivity to noise during evening and nighttime hours, are added to each hourly L_{eq} sound level before the 24-hour CNEL is calculated. For the purposes of assessing noise with the CNEL metric, the 24-hour day is divided into 3 time periods, with the following penalties:

- Daytime: 7 a.m. - 7 p.m. No penalty
- Evening: 7 p.m. - 10 p.m. Penalty of 5 dBA
- Nighttime: 10 p.m. - 7 a.m. Penalty of 10 dBA

The Day-Night Sound Level (L_{dn} or DNL) differs from the CNEL in that it divides the day into only two periods, with the following penalties:

- Daytime: 7 a.m. - 10 p.m. No penalty
- Nighttime: 10 p.m. - 7 a.m. Penalty of 10 dBA

Generally, there is very little difference between the CNEL and L_{dn} metrics.

The effects of noise on people can be listed in three general categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction
- Interference with activities such as speech, sleep, and learning
- Physiological effects such as startling and hearing loss

In most cases, environmental noise produces effects in the first two categories only. However, workers in industrial plants typically experience noise effects in the last category. No completely satisfactory way exists to measure the subjective effects of noise, or to measure the corresponding reactions of annoyance and dissatisfaction. This lack of a common standard is primarily due to the wide variation in individual thresholds of annoyance and habituation to noise.

Table 8.5-2 shows the relative A-weighted noise levels of common sounds measured in the environment and in industry for various sound levels (Beranek, 1988).

TABLE 8.5-2
Typical Sound Levels Measured in the Environment and Industry

Noise Source At a Given Distance	A-Weighted Sound Level (dBA)	Noise Environments	Subjective Impression
Shotgun	140	Carrier Flight Deck	
Civil Defense Siren (100 ft)	130		
Jet Takeoff (200 ft)	120		Threshold of Pain
Loud Rock Music	110	Rock Music Concert	
Pile Driver (50 ft)	100		Very Loud
Ambulance Siren (100 ft)			
	90	Boiler Room	
Freight Cars (50 ft)		Printing Press Plant	
Pneumatic Drill (50 ft) Freeway (100 ft)	80	Noisy Restaurant	
Busy Traffic; Hair Dryer	70		Moderately Loud
Normal Conversation (5 ft)	60	Data Processing Center	
Air Conditioning Unit (100 ft)		Department Store	
Light Traffic (100 ft); Rainfall	50	Private Business Office	
Large Transformer (200 ft)			
Bird Calls (distant)	40	Average Living Room Library	Quiet
Soft Whisper (5 ft); Rustling Leaves	30	Quiet Bedroom	
	20	Recording Studio	
Normal Breathing	10		
	0		Threshold of Hearing

8.5.2 Applicable Laws, Ordinances, Regulations, and Standards

The following are the applicable laws, ordinances, regulations, and standards (LORS) that apply to noise generated by the MEGS.

8.5.2.1 Federal

The federal government has no standards or regulations applicable to offsite noise levels from the Project.

Onsite noise levels are regulated, in a sense, through the Occupational Health and Safety Act of 1970 (OSHA). The noise exposure level of workers is regulated at 90 dBA, over an 8-hour work shift to protect hearing (29 Code of Federal Regulations [CFR] 1910.95). Areas above 85 dBA will be posted as high noise level areas and hearing protection will be required. The MEGS Project will implement a hearing conservation program for applicable employees and maintain exposure levels below 90 dBA.

8.5.2.2 State

Two state laws apply to the Project that address occupational noise exposure and vehicle noise. The California Department of Industrial Relations, Division of Occupational Safety and Health enforces California Occupational Safety and Health Administration (Cal-OSHA) regulations, which are the same as the federal OSHA regulations described above. The regulations are contained in 8 California Code of Regulations (CCR), General Industrial Safety Orders, Article 105, Control of Noise Exposure, Sections 5095, et seq.

Noise limits for highway vehicles are regulated under the California Vehicle Code, Sections 23130 and 23130.5. The limits are enforceable on the highways by the California Highway Patrol and the County Sheriff's Office.

8.5.2.3 Local

The California State Planning Law (California Government Code Section 65302) requires that all cities, counties, and entities (such as multi-city port authorities) prepare and adopt a General Plan to guide community change. City and county General Plans contain noise provisions.

City of Ripon

The City of Ripon's applicable noise guidance is contained in the Community Health and Safety element of the City's General Plan (Volume 1, Chapter 4, Adopted September 15, 1998). Noise goals and policies are established in Goal J of the General Plan and more detailed noise element is contained in Section 4.8 of the General Plan. The City does not have a noise ordinance. Appendix 8.5A contains a letter from the City confirming that the Project as proposed complies with the applicable noise policies.

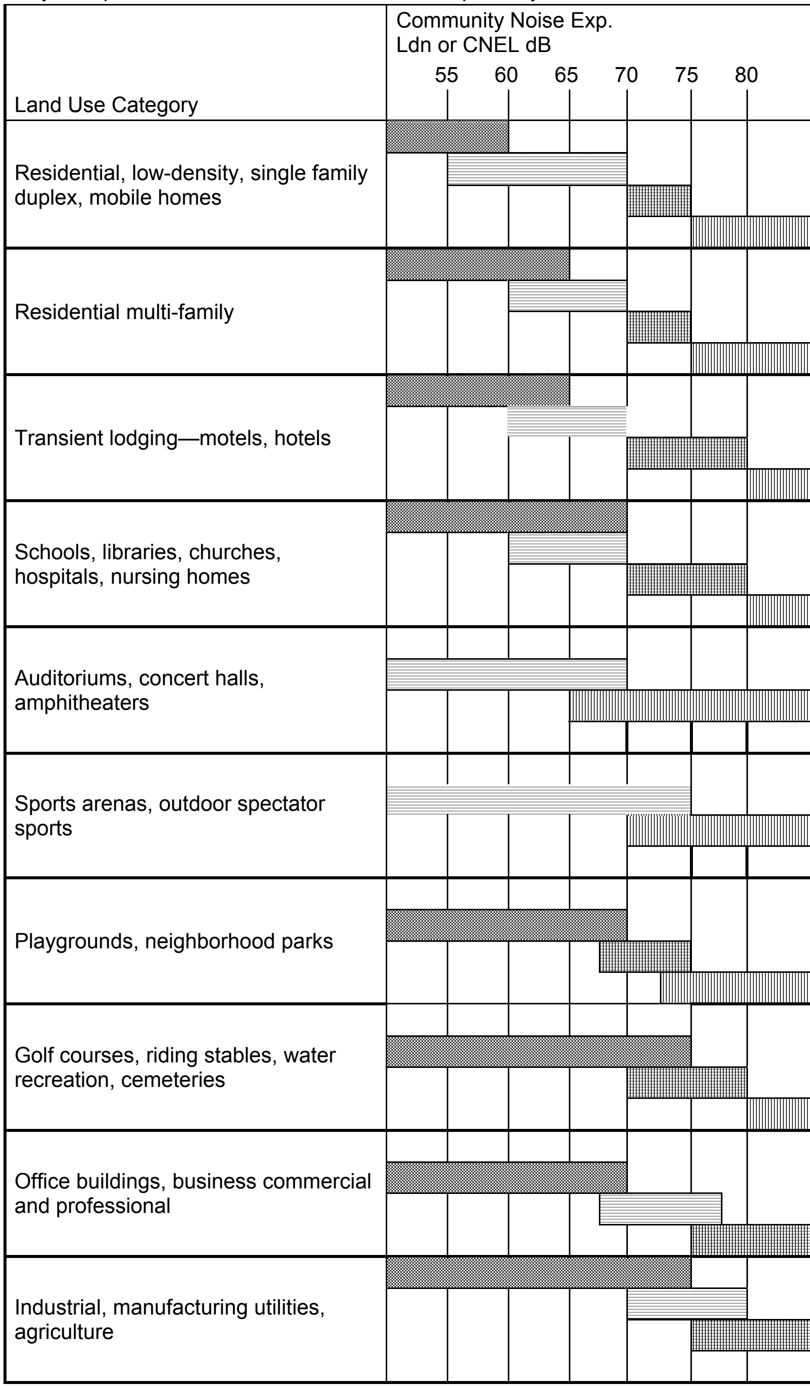
The City's General Plan Policy J6 states that "The Land Use Compatibility Standards set forth in General Plan Table 4.1 are the adopted noise standards for the City of Ripon." (See Table 8.5-3). On page 4-10 of the City's noise element, the City clearly states that, "areas with CNEL or L_{dn} noise levels of 70 dBA or greater (at 50 feet) will be considered noise impacted. Mitigation measures for new residential land uses may be required. CNEL or L_{dn} noise levels of less than 65 dBA will be considered in the acceptable range for residential land uses." Therefore, the City considers exterior noise levels up to 65 dBA L_{dn} acceptable for residential land uses.

The City also considers levels up to 80 L_{dn} acceptable along adjacent industrial, manufacturing, utilities, or agricultural parcels.

Section 16.24.030.P of the Ripon Municipal Code effectively prohibits construction activities that generate noise greater than 70 dBA at the property line on any lot adjacent to residential uses outside the hours of 7:00 a.m. and 7:00 p.m. on Monday through Saturday and 10:00 a.m. to 6:00 p.m. on Sunday. Because the proposed Project site is not immediately adjacent to residential areas, construction noise, as enumerated by the City's Municipal Code, is not a limiting factor for the proposed Project.

A summary of these various LORS is presented in Table 8.5-4.

TABLE 8.5-3
City of Ripon's Recommended Land Use Compatibility Guidelines



INTERPRETATION

Normally Acceptable
Specific land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise requirements.

Conditionally Acceptable
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements has been made and needed noise insulation features have been included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

Normally Unacceptable
New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made, and necessary noise insulation features must be included in the design.

Clearly Unacceptable
New construction or development should generally not be undertaken.

SOURCE:
Land Use Compatibility for Community Noise Environments, Table 4.1 Noise Element of General Plan. (City of Ripon, 1998)

TABLE 8.5-4
Laws, Ordinances, Regulations, and Standards Applicable to Noise

LORS	Applicability	Conformance (Sec. No.)
Federal Offsite		
U.S. Environmental Protection Agency (USEPA)	No applicable LORS.	Not Applicable
Federal Onsite		
OSHA	Exposure of workers over 8-hour shift limited to 90 dBA.	MEGS will comply (Section 8.5.2.1)
State-Onsite		
Cal-OSHA 8 CCR Article 105, Sections 5095 et seq.	Exposure of workers over 8-hour shift limited to 90 dBA.	MEGS will comply (Section 8.5.2.1)
State-Offsite		
California Vehicle Code Sections 23130 and 23130.5	Regulates vehicle noise limits on California highways.	Delivery trucks and other vehicles will meet Code requirements.
Local		
California Government Code Section 65302	Requires local government to prepare plans that contain noise provisions.	City of Ripon conforms
City of Ripon General Plan	Establishes permissible outdoor noise levels based on receiving land use.	MEGS will comply (Section 8.5.4)

8.5.3 Setting

The approximately 12.25-acre proposed Project site is north of the corner of Doak Blvd and South Stockton Avenue extensions in the City of Ripon. Currently, the proposed Project site is unused. Previous use of the site included agricultural uses. The general area is zoned for and surrounded by industrial uses such as Fox River Paper (which includes a cogeneration facility), Nulaid Foods Inc., a grain terminal, and the City of Ripon Wastewater Treatment Plant.

Sources of environmental noise in the vicinity of the Project site include vehicular traffic on State Route 99 (SR 99), auto and heavy truck traffic on local roadways, train movements along SR 99, neighboring light and heavy industrial sources mentioned above, and occasional general aviation aircraft overflights.

Existing noise levels were measured at 4 locations designated as A through D on Figure 8.5-1 (figures are located at the end of the section). Table 8.5-5 describes the noise monitoring locations and their distances to the proposed Project site. Distances to the monitoring locations are from the approximate center of the MEGS facility. Noise measurements taken at monitoring locations C and D (as shown in Table 8.5-5) were conducted during MID's site selection process. The results of those measurements are included in this Small Power Plant Exemption (SPPE) application for completeness. In addition, noise impacts were analyzed at the closest residence north of the Project site, identified as "R" in Figure 8.5-1.

TABLE 8.5-5
Noise Monitoring Locations

Map ID	Land Use	Approximate Distance to MEGS (feet)
A	Residential	1,900
B	Proposed Site	800
C	Vacant Industrial	5,400
D	Residential	6,800

8.5.3.1 Noise Survey Methodology

Continuous noise level measurements were conducted at each location for a period of 25 hours using Larson Davis 824 and Bruel & Kjaer 2238 statistical sound level meters. All equipment used in the survey complied with the requirements of the American National Standards Institute (ANSI) and the International Electrotechnical Commission (IEC) for Type 1 precision sound level measurement instrumentation. Measurements began at approximately 5:00 p.m. on Tuesday, October 8, 2002. The weather conditions were conducive to noise measurements (a plot of the windspeed at monitoring location C is in Appendix 8.5B).

8.5.3.2 Noise Survey Results

The detailed noise monitoring data are presented in Appendix 8.5C. Table 8.5-6 summarizes the midnight to 4 a.m. and the 10 p.m. to 5 a.m. average L_{90} (both have been analyzed by CEC Staff on other projects) and the L_{dn} (in accordance with the metrics used by the City of Ripon) at each monitoring location.

TABLE 8.5-6
Noise Monitoring Results (dBA)

Map ID	Average L_{90} (Midnight - 4 a.m.)	Average L_{90} (10 p.m. - 5 a.m.)	L_{dn}
A	49	48	58
B	51	50	60
C	59	59	73
D	57	58	72

8.5.4 Impacts

8.5.4.1 Environmental Checklist

The following California Environmental Quality Act (CEQA) checklist is used by the California Energy Commission (CEC) in its assessment of potential noise impacts.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
NOISE – Would the Project: result in:				
a) Exposure of person to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b) Exposure of persons to or generation of excessive ground-borne vibration noise levels?				X
c) A substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project?			X	
d) A substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?			X	
e) Exposure of residents or people working in the area to excessive noise levels (for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public use airport)?				X
f) Exposure of residents or people working in the area to excessive noise levels (for a project within the vicinity of a private air strip)?				X

8.5.4.2 Discussion of Impacts

Operational Impacts

A noise model of the proposed MEGS facility has been developed using source input levels derived from manufacturers' data and field surveys of similar equipment. The instantaneous and L_{dn} noise emission contours from the plant have been calculated and mapped over the site and the surrounding areas as shown in Figures 8.5-2 and 8.5-3, respectively. These noise levels represent the anticipated steady-state level from the plant with essentially all equipment operating. To convert from L_{dn} to the instantaneous noise level that one would hear or measure, subtract 6 dB.

The noise model divides the proposed facility into a list of individual point and area noise sources representing each piece of equipment that produces a significant amount of noise. The sound power levels representing the standard performance of each of these components are assigned based either on first-hand field measurements of similar equipment made at other existing plants, data supplied by manufacturers, or information found in the technical literature. Using these standard power levels as a basis, the model calculates the sound pressure level that would occur at each receptor from each source after losses from distance, air absorption, and blockages are considered. The sum of all these individual levels is the total plant level at the modeling point. The sound propagation factors used in the model were adopted from ISO 9613-2 *Acoustics - Sound Attenuation During Propagation Outdoors*.

The sound power levels, by octave band, used in the model are summarized in Table 8.5-7.

TABLE 8.5-7
Octave Band Sound Power Levels Used to Model MEGS Operations, dB (Flat)

	Octave Band Center Frequency, Hz									
Plant Component	**31.5**	**63**	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	**dBA**
Turbine Generator	110	107	110	103	99	93	95	97	87	103
Filter House	106	102	102	91	87	83	84	88	80	94
Stack	134	131	121	107	94	88	86	93	102	109
SCR Fan	114	114	105	83	69	72	82	81	80	93
SCR Main Body	117	113	108	103	94	76	71	69	58	97
SCR Columns 3 through 5	108	103	96	93	84	69	65	63	52	88
SCR Columns 1 through 3	111	103	91	82	67	49	42	39	23	81
Transformer	108	111	105	105	100	94	91	88	88	102
Cooling Tower		107	108	106	100	92	89	86	84	102
Gas Compressor	117	117	111	111	109	108	110	109	108	116
Chiller	96	86	92	83	91	89	70	59	41	92

Table 8.5-8 summarizes the predicted plant noise levels at the noise monitoring locations and closest residences. The analysis shows that the predicted plant sound levels at the residential locations are all below the City's 65 dBA L_{dn} threshold.

TABLE 8.5-8
Predicted MEGS-generated Noise Levels (dBA)

Map Identifier	Predicted L_{dn} Sound Pressure Level	Predicted Instantaneous Sound Pressure Level
A	**63**	**57**
B	70	64
C	54	48
D	**53**	**47**
R5	**61**	**55**

BOLD indicates residential use.

Tables 8.5-9, 8.5-10, and 8.5-11 compare the Project noise levels to the existing midnight to 4 a.m. and the 10 p.m. to 5 a.m. average L_{90} (both have been analyzed by CEC Staff on other projects) and the L_{dn} (in accordance with the metrics used by the City of Ripon) at each monitoring location and at receptor location R.

TABLE 8.5-9
Comparison of Existing Midnight to 4 a.m. average L_{90} Levels to the Predicted Plant Levels (dBA)

Map Identifier	Average L_{90} (Midnight - 4 a.m.)	Predicted Plant Level	Difference
A	**49**	**57**	**+8**
B	51	64	+13
C	59	48	-11
D	**57**	**47**	**-10**
R	**49**	**55**	**+6**

BOLD indicates residential use.
Refer to Figure 8.5-1 for locations
Existing noise levels at R conservatively assumed to be the same as A.

TABLE 8.5-10
Comparison of Existing 10 p.m. to 5 a.m. average L_{90} Levels to the Predicted Plant Levels (dBA)

Map Identifier	Average L_{90} (10 p.m. - 5 a.m.)	Predicted Plant Level	Difference
A	**48**	**57**	**+9**
B	50	64	+14
C	59	48	-11
D	**58**	**47**	**-11**
R	**48**	**55**	**+7**

BOLD indicates residential use.
Refer to Figure 8.5-1 for locations
Existing noise levels at R conservatively assumed to be the same as A.

TABLE 8.5-11
Comparison of Existing L_{dn} Levels to the Predicted Plant Levels (dBA)

Map Identifier	L_{dn}	Predicted Plant Level	Difference
A	**58**	**63**	**+5**
B	60	70	+10
C	73	54	-19
D	**72**	**53**	**-19**
R5	**58**	**61**	**+3**

BOLD indicates residence.
Refer to Figure 8.5-1 for locations.
Existing noise levels at R conservatively assumed to be the same as A.

The Project is located on and surrounded by industrial zoned land. Industrial facilities exist on the north, east, and south sides of the plant site. The west side of the site is slated for future industrial development. As shown in Tables 8.5-9 through 8.5-11, the Project noise levels at the residential uses (identified as locations A, D, and R) do not result in a significant impact under CEQA, regardless of metric.

Tonal Noise

Power plants have several components that can produce tones. As a general rule, modern packaged power plants, even those without significant noise controls, do not produce discrete tones that are prominent or noticeable at typical residential distances. At the monitoring locations modeled here no significant tones are anticipated.

That is not to say that audible tones are impossible—certain sources within the plant such as the combustion turbine inlets, transformers, pump motors, and cooling tower fan gearboxes have been known to produce significant tones. It is MID's intention to anticipate the potential for audible tones in the design and specification of the plant's equipment and take necessary steps to prevent sources from emitting tones that might be disturbing at the nearest receptors.

Ground and Airborne Vibration

Ground- and airborne-induced vibration from operation of the proposed Project will not affect the local area. The proposed Project is primarily driven by gas turbines exhausting into a selective catalytic reduction (SCR) duct. These very large ducts greatly reduce low frequency noise, which is mainly the source of airborne-induced vibration of structures.

The equipment that would be used in the proposed Project is well balanced and is designed to produce very low vibration levels throughout the life of the proposed Project. An imbalance could contribute to ground vibration levels in the vicinity of the equipment. However, vibration-monitoring systems installed in the equipment are designed to ensure that the equipment remains balanced. Should an imbalance occur, the event would be detected and the equipment would automatically shut down.

Construction Impacts

Construction of the MEGS facility is expected to be typical of other comparable power plants in terms of schedule, equipment used, and other types of activities. The noise level will vary during the construction period, depending upon the construction phase. Construction of power plants can generally be divided into five phases that use different types of construction equipment. The five phases are: 1) site preparation and excavation; 2) concrete pouring; 3) steel erection; 4) mechanical; and 5) clean-up (Miller et al., 1978).

Both the USEPA Office of Noise Abatement and Control and the Empire State Electric Energy Research Company have extensively studied noise from individual pieces of construction equipment as well as from construction sites of power plants and other types of facilities (USEPA, 1971; Barnes et al., 1976). Since specific information on types, quantities, and operating schedules of construction equipment is not available at this point in Project development, information from these documents for similarly sized industrial projects was used. Use of this data, which is between 21 and 26 years old, is conservative because the evolution of construction equipment has been toward quieter designs as the country becomes more urbanized and the population becomes more aware of the adverse effects of noise.

The loudest equipment types generally operating at a site during each phase of construction are presented in Table 8.5-12. The composite average or equivalent site noise level, representing noise from all equipment, is also presented in the table for each phase.

TABLE 8.5-12
Construction Equipment and Composite Site Noise Levels

Construction Phase	Construction Equipment	Equipment Noise Level (dBA) at 50 feet	Composite Site Noise Level (dBA) at 50 feet
Site Clearing and Excavation	Dump Truck Backhoe	91 85	89
Concrete Pouring	Truck Concrete Mixer	91 85	78
Steel Erection	Derrick Crane Jack Hammer	88 88	87
Mechanical	Derrick Crane Pneumatic Tools	88 86	87
Clean-Up	Drill Truck	98 91	89

SOURCE: USEPA, 1971; Barnes et al., 1976.

Average or equivalent construction noise levels projected to the nearest residences from the site are presented in Table 8.5-13. These results are conservative since the only attenuating mechanism considered was divergence of the sound waves in open air. At the nearest residential locations, average noise levels during the construction activities are projected to be between 46 dBA and 57 dBA.

TABLE 8.5-13
Average Construction Noise Levels at Closest Receptors (dBA)

Construction Phase	Monitoring Site A (1,900 feet)
Site Clearing and Excavation	57
Concrete Pouring	46
Steel Erection	55
Mechanical	55
Clean-Up	57

Table 8.5-14 lists the typical maximum noise levels associated with common construction equipment at 50 feet and at the closest residential receptor location.

TABLE 8.5-14
Maximum Noise Levels from Common Construction Equipment and Resultant Receptor Noise Levels

Construction Equipment	Typical Sound Pressure Level at 50 ft. (dBA)	Monitoring Site A (1,900 feet)
Dozer (250-700 hp)	88	56
Front End Loader (6-15 yd^3)	88	56
Trucks (200-400 hp)	86	54
Grader (13-16 ft Blade)	85	53
Shovels (2-5 yd^3)	84	52
Portable Generators (50-200 kW)	84	52
Derrick Crane (11-20 tons)	83	51
Mobile Crane (11-20 tons)	83	51
Concrete Pumps (30-150 yd^3)	81	49
Tractor (3/4-2 yd^3)	80	48
Unquieted Paving Breaker	80	48
Quieted Paving Breaker	73	41

Noise generated during the testing and commissioning phase of the Project is not expected to be substantially different from that produced during normal full-load operation. Starts and abrupt stops are more frequent during this period, but on the whole, they are usually short lived.

Construction activities will be conducted in accordance with the City of Ripon's requirements and will be of limited duration. In accordance with CEC findings on numerous similar projects, construction noise will not result in a significant impact.

8.5.5 Mitigation

The following mitigation measures are anticipated to be included in the Project:

Noise Mitigation Measure #1: The Project owner shall establish a telephone number for use by the public to report any significant undesirable noise conditions associated with the construction and operation of the Project. If the telephone is not staffed 24 hours per day, the Project owner shall include an automatic answering feature, with date and time stamp recording, to answer calls when the phone is unattended. This telephone number shall be posted at the Project site during construction in a manner visible to passersby. This telephone number shall be maintained until the Project has been operational for at least one year.

Noise Mitigation Measure #2: Throughout the construction and operation of the Project, the Project owner shall document, investigate, evaluate, and attempt to resolve all legitimate Project-related noise complaints.

The Project owner or authorized agent shall:

- Use the Noise Complaint Resolution Form typically suggested by CEC, or functionally equivalent procedure, to document and respond to each noise complaint
- Attempt to contact the person(s) making the noise complaint within 24 hours
- Conduct an investigation to determine the source of noise related to the complaint
- If the noise complaint is legitimate, take all feasible measures to reduce the noise at its source

Noise Mitigation Measure #3: The Project design and implementation includes:

- Combustion turbine air inlet silencer
- Combustion turbine acoustical enclosure
- Combustion stack silencers
- Noise barrier on the west, north and east sides of the gas compressors

8.5.6 References

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